

REMARKS

In the outstanding Official Action, claims 8 and 13 were rejected under 35 U.S.C. §102(b) over HENRION (U.S. Patent No. 5,594,612). Claims 1, 3 and 18 were rejected under 35 U.S.C. §103(a) over BAIER et al. (U.S. Patent No. 5,375,255) in view of KOYAMA et al. (U.S. Patent No. 6,771,719). Claims 8, 10, 11, 13, 16 and 17 were rejected under 35 U.S.C. §103(a) over TOL et al. (U.S. Patent No. 4,746,902) in view of BAIER. Claim 12 was rejected under 35 U.S.C. §103(a) over TOL in view of BAIER, and further in view of MARU (U.S. Patent No. 6,553,084). The subject matter recited in claims 9, 14 and 15 was objected-to as being dependent upon a rejected base claim, but was otherwise indicated to be allowable if rewritten into independent form to include all of the limitations of the base claim and any intervening claims.

Initially, Applicants would like to thank the Examiner for indicating the allowability of the subject matter recited in claims 9, 14 and 15, if rewritten into independent form to include all of the limitations of base and any intervening claims.

Upon entry of the present amendment claims 1-7, 9 and 18-20 will have been cancelled without prejudice to or disclaimer of the subject matter recited therein. Claims 21-31 will have been added for the Examiner's consideration. In view of the cancellation of claims 1, 3 and 18, Applicants respectfully submit that the rejections of claims 1, 3 and 18 have been rendered moot. In view of the cancellation of claim 9, Applicants respectfully submit that the objection to claim 9 has been rendered moot.

Claim 13 will have been amended to include substantially all of the features previously recited in claim 9. Applicants particularly note that amended claim 13 does not include the features of claim 8, from which claim 9 previously depended. Nevertheless, Applicants submit that amended claim 13 is allowable. In this regard, the combination previously recited in claim 8 (which included the features of claim 13) was rejected in the outstanding Official Action, whereas the combination previously recited in claim 9 (which included the features of claims 13 and 8) was indicated as allowable. In view of the herein-contained amendments to claim 13, Applicants respectfully submit that the rejections of claim 13, as well as the rejections of claims 8, 10-12 and 16-17 and the objection to claim 15, have been rendered moot.

Claim 14 will have been amended into independent form to include substantially all of the features in claim 13 (as pending prior to the present amendment). In view of the herein-contained amendments to claim 14, Applicants respectfully submit that the objection to claim 14 has been rendered moot.

At least in view of the herein contained amendments to independent claims 13 and 14, Applicants submit that each of these claims is now in condition for allowance. Applicants further submit that each of claims 8, 10-12 and 15-17 are allowable at least for depending, directly or indirectly, from an allowable independent claim (13 or 14) as well as for additional reasons related to their own recitations.

The herein-contained amendments should not be considered an indication of Applicants' acquiescence as to the outstanding rejections and objections. Rather, Applicants have amended claims 13 and 14 into independent form in order to expedite prosecution of the present application and in order to obtain early allowance of the claims of the present application.

In this regard, Applicants submit that rejections in the outstanding Official Action are improper. For example, the outstanding Official Action does not provide a proper motivation to modify BAIER with the teachings of TOL to address a problem which is already addressed by BAIER. Thus, there has been no showing of proper motivation to modify BAIER with the teachings of TOL in the manner asserted in the rejection. Nevertheless, as noted herein, Applicants have amended claims 13 and 14 in order to expedite prosecution of the present application and in order to obtain early allowance of claims in the present application.

New claim 21 recites a "digital reception apparatus...comprising... a controller that controls the adjuster based on a gain control signal such that the amplitude of a desired signal contained in the received signal after the reception processing and the distortion correction approaches a required level... wherein the distortion estimator estimates the non-linear distortion of the received signal with reference to the gain control signal". According to claim 21, the amplitude of a received signal is adjusted, based on a control signal that is contained in the received signal such that the amplitude of a desired signal in the received signal approaches a required level after reception processing and distortion correction.

Non-linear distortion of the received signal is estimated with reference to the control signal and corrected by a distortion corrector.

These features are disclosed with respect to the embodiment of the present application shown in Figure 7. In particular, according to the embodiment of Figure 7, control section 702 receives a signal that is contained in a received signal. That is, control section 702 receives a signal from which signals of channels, used with respect to communication apparatuses other than the digital received apparatus of control section 702, are cancelled. Control section 702 controls gain adjusting section 701 based on the amplitude of the input signal. Distortion estimating section 704a estimates non-linear distortion of the received signal based on the control signal output from control section 702.

In contrast to the features recited in claim 21 and the exemplary embodiment shown in Figure 7, BAIER does not disclose any element such as the control section 702. BAIER performs a non-linear dynamic compression in IF amplifier 22, but does not disclose adjusting the amplitude of a received signal based on the amplitude of a signal that is contained in a received signal and that is necessary for demodulation.

Furthermore, KOYAMA discloses controlling the gain of a received signal, but does not disclose estimating non-linear distortion of the received signal with reference to a control signal for use for adjusting the amplitude of the received signal. These features are also not disclosed suggested or rendered obvious, in the claimed combination, by any other reference applied in the outstanding Official Action.

Accordingly, Applicants submit that new claim 21 is in condition for allowance. Applicants further submit that claims 22-31 are allowable at least for depending, directly or indirectly, from an allowable independent claim 21, as well as for additional reasons related to their own recitations.

Accordingly, Applicants respectfully request reconsideration and withdrawal of each of the outstanding rejections and objections, as well as an indication of the allowability of each of the claims now pending, at least for the numerous reasons set forth above.

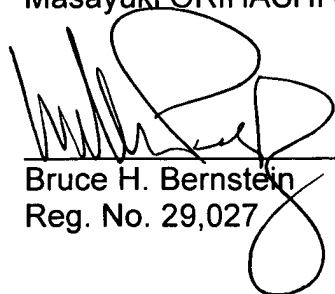
SUMMARY AND CONCLUSION

In view of the fact that none of the art of record, whether considered alone or in combination, discloses or suggests the present invention as now defined by the pending claims, and in further view of the above amendments, new claims and remarks, reconsideration of the outstanding rejections and objections and allowance of the present application are respectfully requested and are believed to be appropriate.

Any new claims which have been added or amendments which have been made in this amendment, and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

If there should be any questions concerning this application, the Examiner is requested to contact the undersigned at the telephone number listed below.

Respectfully Submitted,  
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